

AMENDMENTS TO THE ABSTRACT

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ABSTRACT

A method for analyzing an electromagnetic field includes: a step ~~S1 for~~ setting up initial shapes of conductor patterns in each layer of a multilayer circuit board; a step ~~S2 for of~~ setting up initial ports for input or output of an external signal in each conductor pattern; a step ~~S3 for of~~ dividing two-dimensionally the multilayer circuit board into a plurality of areas; and steps S4a- and S4b for of setting up additive ports on edges of the conductor pattern which has been created by area-division. Additionally, the method includes area-division; steps ~~S5a and S5b for of~~ setting up individual analysis conditions for the initial ports and the additive ports, respectively; steps ~~S6a and S6b for of~~ performing an electromagnetic analysis of the multilayer circuit board by the divided area, based on the analysis conditions; and a step ~~S8 for of~~ integrating results of the electromagnetic analysis over each of the divided areas, thereby obtaining results of the electromagnetic analysis over the whole circuit board.

~~By using this approach, an EM analysis of a multilayer circuit board can run quickly to significantly reduce time and cost required for designing the circuit board.~~